

Sub B

1. A multistage amplifier, comprising:
a plurality of amplifying elements for amplifying an input signal stage by stage and outputting an amplified signal; and
5 a matching circuit, arranged between each pair of amplifying elements adjacent to each other, for performing an impedance matching between the pair of amplifying elements,
characterized in that one matching circuit comprises:
a one-stage high pass filter type matching unit; and
10 a one-stage low pass filter type matching unit serially connected with the one-stage high pass filter type matching unit.
2. A multistage amplifier according to claim 1, wherein the matching circuit arranged between the final-stage amplifying element and the
15 amplifying element placed just before the final-stage amplifying element comprises the one-stage high pass filter type matching unit and the one-stage low pass filter type matching unit serially connected with each other.
- 20 3. A multistage amplifier according to claim 1, wherein the one-stage high pass filter type matching unit is placed on an input side of the input signal, and the one-stage low pass filter type matching unit is placed on an output side of the amplified signal.
- 25 4. A multistage amplifier according to claim 1, wherein the one-stage low pass filter type matching unit is placed on an input side of the input signal, and the one-stage high pass filter type matching unit is placed on an output side of the amplified signal.
- 30 5. A multistage amplifier according to claim 1, wherein the one-

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$\frac{d}{dt} \left(\frac{\partial L}{\partial \dot{x}} \right) = \frac{\partial L}{\partial x}$

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8. A multistage amplifier according to claim 7, wherein a serial line is used as the serial inductor.

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